June 18, 2003

Mr. Carl Vogt
Crown Group, Fort Wayne Plant
P. O. Box 700
Detroit, MI 48267-0833

Re: Registered Construction and Operation Status,
003-17677-00159

Dear Mr. Vogt:

The application from Crown Group, Ft. Wayne Plant, received on April 28, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following emission units, to be located at 4301 Engle Road, Fort Wayne, Indiana, are classified as registered:

(a) One (1) electro-deposition tank, identified as EU1, constructed February, 1993, coating automotive parts at a maximum capacity of twenty one (21) gallons per hour, and exhausting to the atmosphere.

(b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu (MMBtu) per hour:

(1) One (1) curing oven, rated at 3.5 MMBtu per hour, and exhausting to cure oven stack;
(2) One (1) air make-up unit, rated at 7.5 MMBtu per hour, and exhausting to the atmosphere;
(3) Five (5) space heaters, each rated at 0.1 MMBtu per hour, and each exhausting to the atmosphere.

(1) The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the electro-deposition tank shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

This source, which was operating under a Part 70 permit, is being issued a registration due to a reduction in potential emissions. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,
Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File - Allen County
Allen County Health Department
Air Compliance - Jennifer Dorn
Permit Tracking
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name: Crown Group Fort Wayne Plant
Address: P. O. Box 700
City: Detroit, MI 48267-0833
Authorized individual:
Phone #:
Registration #: 003-17677-00159

I hereby certify that **Crown Group, Ft. Wayne Plant** is still in operation and is in compliance with the requirements of Registration **003-17677-00159.**

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	**Crown Group Fort Wayne Plant**
Source Location:	**4301 Engle Road, Fort Wayne, Indiana 46601**
County:	**Allen**
SIC Code:	**3479**
Operation Permit No.:	**003-17677-00159**
Permit Reviewer:	**Madhurima D. Moulik**

The Office of Air Quality (OAQ) has reviewed an application from Crown Group Fort Wayne Plant relating to the operation of a stationary automotive parts surface coating operation.

Emission Units and Pollution Control Equipment

The source consists of the following emission units and pollution control devices:

(a) One (1) electro-deposition tank, identified as EU1, constructed February, 1993, coating automotive parts at a maximum capacity of twenty one (21) gallons per hour, and exhausting to the atmosphere.

(b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu (MMBtu) per hour:

(1) One (1) curing oven, rated at 3.5 MMBtu per hour, and exhausting to cure oven stack;
(2) One (1) air make-up unit, rated at 7.5 MMBtu per hour, and exhausting to the atmosphere;
(3) Five (5) space heaters, each rated at 0.1 MMBtu per hour, and each exhausting to the atmosphere.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP 003-2774, Plant ID 003-00159, issued on February 12, 1993;

(b) CP 003-2262, Plant ID 003-00159, issued on March 21, 1994; and

(c) Part 70 permit no. 003-9794-00159, issued on January 24, 2001.

This source, which was earlier subject to Part 70 Permit requirements, has changed the coating used, reducing single and combination HAP emissions to less than 10 and 25 tons per year, respectively. Therefore, Part 70 permit No. T003-9794-00159 is being revoked (Revocation No. 003-17335-00159) and this registration No. 003-17677-00159 is being granted.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1	Electrodeposition	30	30	10,000	350

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 28, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations from combustion units.

Emissions from surface coating operation:

Resin and paste are applied on a 10:1 ratio.

Density of resin = 8.8 lb/gal

Density of paste = 11.4 lb/gal

VOC content in resin = 0.08 lb/gal

VOC content in paste =0.64 lb/gal

Therefore, VOC content of mixture = {(0.08 x 10) + (0.64 x 1)} / 11 lb/gal = 1.44 lb VOC/gal coating

Usage = 21 gal/hr

Potential to Emit = 0.1309 lb/gal x 21 gal/hr x 8760 hr/yr x 1 ton/2000 lb = 12.04 tons/yr

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant,

including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.4
PM-10	0.4
SO_2	Negligible
VOC	12.34
CO	4.2
NO_x	5.0

HAP's	Potential To Emit (tons/year)
Single HAP	Negligible
TOTAL	Negligible

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Allen County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants, (326 IAC 14, 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

The potential to emit of all criteria pollutants from this source is less than 250 tons per year, and it is not one of the twenty-eight (28) listed source categories. Therefore 326 IAC 2-2 does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this stationary automotive parts surface coating operation emits negligible amounts of hazardous air pollutants. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Allen County and the potential to emit of all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

Manufacturing processes with potential PM emissions below 0.551 pounds per hour are not subject to 326 IAC 6-3-2. Therefore, 326 IAC 6-3-2 is not applicable to any of the emission units at this source.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the electro-deposition tank shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the electro-deposition tank is in compliance with this requirement.

Conclusion

The operation of this stationary automotive parts surface coating operation shall be subject to the conditions of the Registration No. 003-17677-00159.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Combustion Units
Company Name: Crown Group, Ft. Wayne Plant
Address City IN Zip: 4301 Engle Road, Fort Wayne, Indiana
CP: 003-17677
Plt ID: 003-00159
Reviewer: Madhurima D. Moulik
Date: May 8, 2003

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
11.5	100.7

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.4	0.0	5.0	0.3	4.2

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 7/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Combustion Units
HAPs Emissions
Company Name: Crown Group, Ft. Wayne Plant
Address City IN Zip: 4301 Engle Road, Fort Wayne, Indiana
CP: 003-17677
Plt ID: 003-00159
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HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.058E-04	6.044E-05	3.778E-03	9.067E-02	1.713E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.519E-05	5.541E-05	7.052E-05	1.914E-05	1.058E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.